



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/670,064

09/23/2003

Michael L. Case

42P17673

5098

8791

7590

07/30/2009

BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP
1279 OAKMEAD PARKWAY
SUNNYVALE, CA 94085-4040

EXAMINER

LUONG, ALAN H

ART UNIT

PAPER NUMBER

2427

MAIL DATE

DELIVERY MODE

07/30/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/670,064	Applicant(s) CASE, MICHAEL L.	
	Examiner ALAN LUONG	Art Unit 2427	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, 8, 13 and 18 have been amended. Therefore, claims 1-23 are pending in this application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **1- 5, 8-10, 13-15 and 18-21** are rejected under 35 U.S.C. 102(e) as being anticipated by US Publication No. 2005/0172332 by Fukuda et al.

Regarding to claim 1: Fig. 2 of Fukuda illustrates an apparatus comprising:

a tuner [102] has **a tuner unit [201] to receive modulated video signals** (i.e. from a disk medium, an ISDN communication network, a satellite digital communication network, a ground wave digital broadcasting network, a cable television network etc; see ¶0054), **the tuner [102] having an external control interface [203]** (where is connecting to 1394 interface [221] of receiver [101]); **to receive commands in a first protocol** (i.e. is isochronous transfer or AV/C protocol is defined in ¶0057) **specific to the tuner [102] at the external control interface** (Fukuda, ¶0056).

a graphics controller [230] to generate commands in a second generalized protocol (i.e. is asynchronous transfer or serial bus connection protocol is defined in

Art Unit: 2427

[¶0058]) (A control unit 230 has a microcomputer and serves to control the process operation of the digital television receiver 101). **(Fukuda, ¶0079)**

The tuner [102] includes **a microcontroller [204] coupled to the graphics controller** (i.e. as control unit [230] of receiver [101]) **and to the tuner unit [201] to receive the commands from the graphics controller in the second protocol** (i.e. is the asynchronous transfer protocol is defined in ¶0058); **to convert the commands from the second protocol to the first protocol** (i.e. upon request from remote control interface [228] to send command to control unit [230] of Digital receiver [101]) in second protocol; the Digital receiver [101] sets the isochronous connection with tuner [102] in the first protocol (**¶0109**); the control unit 204 of the tuner 102 executes isochronous transfer of the content selected by the digital television receiver 101, utilizing another isochronous channel (**¶0110**) **and to transmit the converted commands to the tuner unit [201] through the external control interface [203] of the tuner [102] to the 1394 interface [221] where receives the stream data from the tuner [102] as the first protocol** (Fukuda, **¶0070, ¶0077-¶0079**)

Regarding to claim 2. The apparatus of Claim 1, Fig. 4 of Fukuda illustrates wherein the tuner further generates command responses in the first protocol (**¶0090**) and wherein the microcontroller receives the command responses, converts them to the second protocol and transmits the converted command responses to the graphics controller (Fukuda, **¶0097, ¶0098**).

Regarding to claim 3: The apparatus of Claim 1, Fukuda further teaches a **second tuner [103] to receive a modulated video signal** (Fukuda, ¶0062-¶0063)., **the second tuner having an external interface [213] to receive commands in a third protocol**(i.e. is the same isochronous transfer or AV/C protocol is defined in ¶0057) **specific to the second tuner, and wherein the microcontroller [214]** (i.e. 214 has the same function as 204) **receives external commands from the graphics controller for the second tuner in the second protocol** (Fukuda, ¶0095), **converts them to the third protocol** (Fukuda, ¶0096) **and transmits them to the external interface of second tuner** (Fukuda, ¶0065).

Regarding to claim 4: The apparatus of Claim 1, referring to Fig. 2 of Fukuda **wherein the tuner further comprises an input/output interface [203] to communicate data and control signals in the first protocol to external devices as a digital TV receiver [101] and wherein the microcontroller [204] is coupled to the input/output interface to convert data and control signals between the first protocol and the second protocol** (Fukuda, ¶0056).

Regarding to claim 5: The apparatus of Claim 1, referring to Fig. 2 of Fukuda wherein the graphics controller [230] is **a system processor coupled to the microprocessor to generate the commands in the first protocol to control the tuner** (the graphics controller of receiver communicates with tuner in isochronous channel based on the first protocol (¶0090) and connection by issuing a User-Action command to the external interface of tuner and sends it to the microprocessor which in

Art Unit: 2427

response executes control corresponding to such User_Action
command)(Fukuda, ¶¶0105-¶0106) **and to control other functions of the apparatus.**

(Fukuda, ¶0079)

Regarding to claim 8: has the same limitation in claim 1, so, claim 8 is rejected
the same ground with claim 1

Regarding to claim 9: has the same limitation in claim 2, so, claim 9 is rejected
the same ground with claim 2

Regarding to claim 10: has the same limitation in claim 3, so, claim 10 is
rejected the same ground with claim 3

Regarding to claim 13: With respect to the article claim 13, as discussed
above since the apparatus disclosed by Fukuda anticipated every structural element
and its function required by apparatus in claim 1 and since this article in claim 13 merely
repeats the same limitations of claim 1, claim 13 must also be anticipated by Fukuda
(see claim 1 rejection).

Regarding to claim 14: With respect to the article claim 14, as discussed
above since the apparatus disclosed by Fukuda anticipated every structural element
and its function required by apparatus in claim 2 and since this article in claim 14 merely
repeats the same features of claim 2, claim 14 must also be anticipated by Fukuda (see
claim 2 rejection).

Regarding to claim 15: With respect to the article claim 15, as discussed
above since the apparatus disclosed by Fukuda anticipated every structural element

and its function required by apparatus in claim 3 and since this article in claim 15 merely repeats the same features of claim 3, claim 15 must also be anticipated by Fukuda (see claim 3 rejection).

Regarding to claim 18: Fig. 2 of Fukuda illustrates a video tuner [101] comprising:

- a system processor [230] to receive user commands at remote control interface [228] from remote control [104] and to generate commands in a second generalized protocol based on the received user commands to control at least one tuner [102];
- a tuner unit [201] to receive wireless video signals modulated over a carrier frequency, the tuner having an external control interface to receive commands in a first protocol specific to the tuner from the system processor; and
- a microcontroller [204] coupled between the system processor and to the tuner (i.e. tuner unit [201]) to receive tuner commands from the system processor in the second protocol, to convert them from the second generalized protocol to the first specific protocol, and to transmit them to the tuner (i.e. tuner unit [201]) through the external control interface.

With respect to the video tuner claim 18, as discussed above since the apparatus disclosed by Fukuda anticipated every structural element and its function of system processor as combination of function of CPU and a graphics controller required by an apparatus claim 1 and since this video tuner in claim 18 merely repeats the same scope of claim 1, claim 18 must also be anticipated by Fukuda (see claim 1 rejection).

Regarding to claim 19: With respect to the video tuner claim 19, as discussed above since the apparatus disclosed by Fukuda anticipated every structural element and its function required by an apparatus claim 2 and since this video tuner in claim 19 merely repeats the same scope of claim 2, claim 19 must also be anticipated by Fukuda (see claim 2 rejection).

Regarding to claim 20: With respect to the video tuner claim 20, as discussed above since the apparatus disclosed by Fukuda anticipated every structural element and its function required by an apparatus claim 3 and since this video tuner in claim 20 merely repeats the same scope of claim 3, claim 20 must also be anticipated by Fukuda (see claim 3 rejection).

Regarding to claim 21: With respect to the video tuner claim 21, as discussed above since the apparatus disclosed by Fukuda anticipated every structural element and its function required by an apparatus claim 4 and since this video tuner in claim 21 merely repeats the same scope of claim 4, claim 20 must also be anticipated by Fukuda (see claim 4 rejection).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 6, 11, 16 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda, in view of US Patent No 6,772,434 to Godwin

Regarding to claim 6: Fukuda teaches all limitations of claim 1, but fails to teach a look-up table for the tuner wherein the microprocessor converts the external tuner commands by applying the commands in the second protocol to the look-up table.

In an analogous art directed toward a similar problem namely improving the results from a look-up table for the tuner. Fig. 3A of Godwin shows a data stream and Fig. 3B shows a data package as **a look-up table** (Godwin, col.5 lines 13-52) **for the tuner** (col. 4 line 61 to col.5 line 5). Therefore, it would have been obvious to a person having an ordinary skill in the art at the time of the invention was made to modify an apparatus of Fukuda, with a data stream and a data packet for tuner as Godwin's disclosure; in order to provide a system for an integrated presentation of the media programs from primary service providers and secondary service providers, and an integrated technique for managing conditional access to the programs provided by different service providers.

Regarding to claim 11 and 16: With respect to the method claim 11 and 16, as discussed above since the apparatus disclosed by Fukuda anticipated every structural element and its function required by apparatus claim 6 in view of Godwin and since this method in claim 11 and 16 merely repeat the limitation of claim 6, claim 11 and 16 have the same ground rejection as claim 6.

Regarding to claim 22: With respect to the method claim 22, as discussed above since the apparatus disclosed by Fukuda anticipated every structural element

Art Unit: 2427

and its function required by apparatus claim 6 in view of Godwin and since this method in claim 22 merely repeat the limitation of claim 6, claim 22 have the same ground rejection as claim 6.

3. **Claims 7, 12, 17 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuda, in view of US Pub. 2003/0194968 by Young.

Regarding to claim 7: Fukuda teaches all features of apparatus in claim 1, but Fukuda is unclear regarding to “an instruction stack specific for the tuner and wherein the microcontroller converts the external tuner commands by applying instructions from the tuner-specific instruction stack”.

In an analogous art directed toward a similar problem namely improving the results from an instruction stack specific for the tuner. Young teaches **an instruction stack** (as “stream using RTP/RTSP protocol”...**specific for the tuner**), (see ¶0074 lines 1-6) and (Fig. 2b block 252, Fig.6c block 251) **and wherein the microcontroller converts the external tuner commands by applying instructions from the tuner-specific instruction stack** (Young, ¶0073-¶0074)]. Therefore, it would have been obvious to a person having an ordinary skill in the art at the time of the invention was made to modify an apparatus of Fukuda with an instruction stack specific for the tuner as taught by Young to install and configure due to the fact that each device must be equipped with a proprietary interface for communicating to other devices on the network. (¶0009)

Regarding to claim 12 and 17: With respect to the method claim 12 and 17, as discussed above since the apparatus disclosed by Fukuda anticipated every structural element and its function required by apparatus claim 7 in view of Young and since this

method in claim 12 and 17 merely repeat the limitation of claim 7, claim 12 and 17 have the same ground rejection as claim 7.

Regarding to claim 23 With respect to the video tuner claim 23, as discussed above since the apparatus disclosed by Fukuda and Young anticipated every structural element and its function required by an apparatus claim 7 and since this video tuner in claim 23 merely repeats the same scope of claim 7, claim 23 must also be anticipated by Fukuda and Young (see claim 7 rejection).

Response to Arguments

Applicant's arguments filed 04/06/2009 have been fully considered but they are not persuasive.

First, Applicant respectfully points out that from paragraph 56, the remote control panel is indeed sent from the tuner through the 1394 interface using the second protocol. However, the claim recites "to convert from the second protocol to the first protocol." This is enough to traverse the Examiner's rejection. (Remark, page 9). Examiner respectfully disagrees.

Fukuda explicitly teaches that: "A 1394 interface 203 converts the content supplied from **the tuner unit 201**, into stream data according to a first communication protocol under control by control unit 204 and the 1394 interface 203 also executes transfer of the remote control panel, supplied from the display panel generation unit 202, to the digital television receiver 101 according to a second communication protocol under control by control nit 204 (paragraph 56); Applicant respectfully misinterpreted paragraph 56, the

remote control panel is indeed sent from **the tuner unit** through the 1394 interface using the second protocol.

Second, the Examiner has ignored the recited connections between the first and third paragraph of Claim 1. In the Examiner's reading of the third paragraph, commands are sent from the TV control unit to the tuner control unit through the 1394 interface. These are converted to remote control panels and sent back to the TV control unit again through the 1394 interface. Claim 1 has been clarified to recite that the commands are sent to the tuner through the external interface. Further clarifying the recited connections. (Remark, page 9). Examiner respectfully disagrees.

Regarding to reading of the third paragraph, Examiner relies on Fig. 2 of Fukuda explicitly teaches the user inputs commands are sent from a graphical control unit [230] of Digital receiver [101] (i.e. the TV control unit) to the tuner control unit (i.e. control unit [204]) through the 1394 interface [203] of [102] and [221] of [101]. In tuner device [102], upon response request, control unit [204] controls tuner unit [201] to send back to the TV control unit again through the 1394 interface. These are converted to not only remote control panels but also A/V data stream as taught by Fukuda. Therefore, Claim 1 has been clarified to recite that the commands are sent to the tuner through the external interface.(see (¶0070, ¶0077-¶0079) and (¶0109-¶0110))

Third, Claim 1 recites that the tuner is to "receive commands in a first protocol specific to the tuner at the external control interface." The Examiner's reading would require that the tuner 101 of Fukuda receive commands in the first protocol at the 1394

Art Unit: 2427

interface of the tuner. While the first protocol of Fukuda is identified as an audio video control protocol, there is no mention of any commands being received by the tuner using that protocol. If commands are sent on the first protocol, they may be sent only to other devices as Fukuda's system uses the second protocol for commands. (Remark, page 10). Examiner respectfully disagrees.

Fukuda explicitly teaches that: "A 1394 interface 203 converts the content supplied from **the tuner unit 201**, into stream data according to a first communication protocol under control by control unit 204; (§0056). Applicant confuses a tuner device [102] with a tuner unit [201] as is clarified by Examiner.

Finally, Applicant respectfully points out that Fukuda does not show 1) conversion of commands from one protocol to another, nor 2) a microcontroller between a tuner and a graphics controller to send commands from one to the other. (Remark, page 10).

Examiner respectfully disagrees.

Regarding above discussions; Examiner recognizes the Applicant's position, however, Fukuda does show 1) conversion of commands from one protocol to another, and 2) a microcontroller between a tuner and a graphics controller to send commands from one to the other.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN LUONG whose telephone number is (571)270-5091. The examiner can normally be reached on Mon.-Thurs., 8:00am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/670,064
Art Unit: 2427

Page 14

/ALAN LUONG/
Examiner, Art Unit 2427

/Scott Beliveau/

Supervisory Patent Examiner, Art Unit 2427